

WHAT IS CLAIMED IS:

1. An ink-jet recording system which employs an ink-jet recording apparatus comprising a recording-medium-holding part for a recording medium having an ink-receiving layer on a base material and an ink-holding part for a pigment inks to record an image on the ink-receiving layer of the recording medium fed from the recording-medium-holding part using the pigment ink fed from the ink-holding part, wherein

(1) the ink-receiving layer of the recording medium is a porous layer comprising alumina hydrate and a resin binder and has a pore volume ranging from 0.1 to 1.0 ml/g; and

(2) the pigment ink comprises an aqueous medium, a resin and a pigment, the particle diameter of the pigment substantially falls within a range of from 10 to 500 nm, and the proportion of the pigment particles having a particle diameter of 300 to 500 nm is at most 30% based on the total number of particles of the pigment.

2. The ink-jet recording system according to Claim 1, wherein the BET specific surface area of the ink-receiving layer falls within a range of from 20 to 450 m²/g.

3. The ink-jet recording system according to Claim

1, wherein the content of the resin contained in the pigment ink is within a range of from 0.001 to 10 % by mass based on the total mass of the ink.

5 4. The ink-jet recording system according to any one of Claims 1 to 3, wherein inks of plural colors of at least cyan, magenta and yellow are used as the pigment ink.

10 5. An ink-jet recording method comprising conducting ink-jet recording on a recording medium having an ink-receiving layer on a base material using a pigment ink to form an image, wherein
15 (1) the ink-receiving layer is a porous layer comprising alumina hydrate and a resin binder and has a pore volume ranging from 0.1 to 1.0 ml/g; and
20 (2) the pigment ink comprises an aqueous medium, a resin and a pigment, the particle diameter of the pigment substantially falls within a range of from 10 to 500 nm, and the proportion of the pigment particles having a particle diameter of 300 to 500 nm in the pigment is at most 30% based on the total number of particles of the pigment.

25 6. The ink-jet recording method according to Claim 5, wherein the BET specific surface area of the ink-

receiving layer falls within a range of from 20 to 450
m²/g.

7. The ink-jet recording method according to Claim
5 5, wherein the content of the resin contained in the
pigment ink is within a range of from 0.001 to 10 % by
mass based on the total mass of the ink.

8. The ink-jet recording method according to any
10 one of Claims 5 to 7, wherein inks of plural colors of
at least cyan, magenta and yellow are used as the
pigment ink.